

ABSTRACT OF THE DISCLOSURE

[61] A method and apparatus are provided in accordance with embodiments of the present invention for heat-treating electrical contacts. The method and apparatus include plating a core wire with at least one conductive coating to form an electrical contact that experiences internal stresses. The method and apparatus further include induction heating the electrical contact for a predetermined period of time to at least partially relieve the internal stresses. A plurality of electrical contacts may be mounted on a substrate that is held near induction coils to cause heating. The electrical contacts may be formed with spring shaped bodies that are aligned at a desired orientation within magnetic fields created during induction heating. In accordance with at least one embodiment of the present invention, different portions of each electrical contact may be annealed by different desired amounts. The electrical contacts are annealed such that a base portion of each electrical contact undergoes less annealing to retain superior strength properties and the flexible portion of the electrical contact which retains superior stress-relaxation properties.